Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, May 2023

Course: Cereal, Pulse and Oilseed Technology Program: B. Tech. Food Technology Course Code: HSCC2009 Semester: 4th Duration: 3 Hours MM: 100

Instructions:

| S. No. | Section A | Marks | COs |
|--------|--|-------|------|
| | Short answer questions/ MCQ/T&F | | |
| | (20Qx1.5M= 30 Marks) | | |
| Q 1 | | | |
| 1 | Define milling. | 1.5 | CO 1 |
| 2 | State the quality characteristics of flour. | 1.5 | CO 1 |
| 3 | Define gelatinization. | 1.5 | CO 1 |
| 4 | Enlist the parts of a rice grain. | 1.5 | CO 1 |
| 5 | Define malting. | 1.5 | CO 1 |
| 6 | Define pitting and its utility. | 1.5 | CO 1 |
| 7 | Name two processing machines of rice? | 1.5 | CO 2 |
| 8 | Identify the products and byproducts generated during wheat | 1.5 | CO 2 |
| 9 | milling. Cereals are deficient in amino acids and pulses are | 1.5 | CO 2 |
| 9 | deficient in amino acids. | 1.5 | |
| 10 | Report two important characteristics of parboiled rice. | 1.5 | CO 2 |
| 11 | Explain high ratio flour. | 1.5 | CO 2 |
| 12 | Identify the machines for oil extraction from oilseeds. | 1.5 | CO 2 |
| 13 | Classify the pretreatment methods for pulses. | 1.5 | CO 2 |
| 14 | Write three examples of maturing agents used for wheat flour. | 1.5 | CO 3 |
| 15 | Write any two advantages of air fractionation of wheat flour. | 1.5 | CO 3 |
| 16 | Interpret the role of ingredients in bread-making | 1.5 | CO 3 |
| 17 | Write about sifters in wheat milling. | 1.5 | CO 3 |
| 18 | Interpret the curing of rice. | 1.5 | CO 3 |
| 19 | Write any three major millets. | 1.5 | CO 3 |
| 20 | Give the classification of flours | 1.5 | CO 3 |

| | (4Qx5M=20 Marks) | | |
|-----|---|----|------|
| Q 1 | | | |
| 1 | Explain dry pulse milling method with the help of a neat flow diagram. | 5 | CO 2 |
| 2 | Discuss the by-products of rice milling. | 5 | CO 3 |
| 3 | Differentiate between whole wheat flour and refined wheat flour. | 5 | CO 4 |
| 4 | Analyze the methods to remediate anti-nutritional factor in pulses. | 5 | CO 4 |
| | Section C | | |
| | (2Qx15M=30 Marks) | | |
| Q 1 | | | |
| 1 | Discuss solvent extraction method of oilseed processing in detail. Also explain the refining steps of the oil thus obtained. | 15 | CO 3 |
| 2 | Illustrate the concept of drying and how it can be utilized in rice processing. Also mention the type of dryers suitable for this process. | 15 | CO 4 |
| | Section D | | |
| | (2Qx10M=20 Marks) | | |
| Q 1 | | | |
| 1 | Write short notes on the following: a. Biscuit processing b. Processing steps of making pasta c. Cleaning equipment d. Conditioning/Tempering | 10 | CO3 |
| 2 | Explain the CFTRI process of paddy parboiling and how it is different from traditional methods. | 10 | CO 2 |